

Transformer 50 VA-16 V

Item-no. 70-09030-01



Transformer 52 VA-12/18 V

Item-no. 70-09021-01



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Subject to technical modification.

1. Getting started

Scope of delivery

- Transformer with permanently mounted mains cable with Euro flat plug
- Manual

Intended use

The transformers 50 VA-16 V und 52 VA-12/18 V are designed to be operated according to the instructions in this manual with model railways and in model building. Any other use is inappropriate and invalidates any guarantees.

The transformers are not intended to be installed by children under 14 years of age.

Reading, understanding and following the instructions in this manual are mandatory for the user.



Please note:

Non-observance of the manual may cause damage to your transformer. There is also a risk of short circuit, fire or electric shock!

Danger to life!

2. Safety instructions

No conversions and repair attempts!

Do not make any conversions or changes to your transformer. Do not open or disassemble it. Do not replace a damaged mains cable, in which case dispose of the transformer.

Protect from moisture!

The transformer must not become damp or wet. Therefore, use it only in closed and dry rooms.

Protect it from external damage!

Do not expose the transformer to strong vibrations, strong mechanical stress or direct intensive sunlight.

Make sure that the mains cable is not crushed or damaged by sharp-edged objects.

If the housing or the insulation of the mains cable is damaged, do not continue to use the transformer.

Protect from overheating!

Ensure that the transformer is able to release the heat generated during operation to the ambient air. Therefore, never cover or install it. Otherwise the transformer may overheat.

Protect it from falling down!

Always place the transformer on a stable surface. The transformer can be damaged even if it is dropped from a low height. There is also a risk of injury due to its heavy weight.

Connect it correctly!

The transformer is only approved for connection to an AC voltage of 230 V/AC, 50 Hz. Never try to operate the device at a different voltage. Observe the further instructions in Section 4 "Installation, connection and commissioning".

3. Assembly, connection and commissioning

Special note for transformer 50 VA-16 V:

The transformer 50 VA - 16 V is **not a toy transformer!**

It does not meet the requirements for transformers for toys according to DIN EN 61558-2-7. Therefore do not use this transformer in areas where children are unattended.



Installation

Place the transformer in such a way that it is secured against falling down and the heat generated during operation can be dissipated to the ambient air. The base plate of the transformer has holes to accommodate fastening screws. Never screw screws directly into the housing of the transformer!

Connecting the loads

When connecting the supply lines to the loads, make sure that the line cross section is sufficient. Overloading the connecting cables can cause overheating and fire hazard!

The terminals on the transformer are intended for connecting the consumers. Press the pushbutton on the terminal and insert the stripped connecting cable into the opening.

Ensure that the maximum total current / total power is not exceeded, otherwise the transformer will be overloaded.

	Transformer 50 VA-16 V	Transformer 52 VA-12-18 V
Output-voltage	16 V	Terminals 0 / 12 V: 12 V Terminals 0 / 18 V: 18 V
Max. total current	3,125 A	2,9 A
Max. total power	50 VA	52 VA

Do not connect in series or parallel!

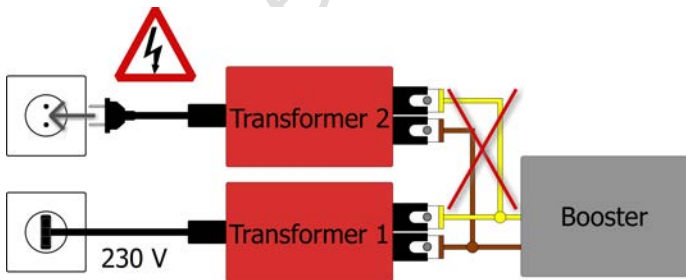
Never connect the outputs of several transformers in parallel or in series. This can cause short circuits and dangerous voltages.

Make sure (e.g. in the event of subsequent modifications) that you do not inadvertently connect supply lines to loads to the outputs of two (or more) transformers.

Not like this!

Because the power of one transformer is not sufficient, in the example shown the booster is supplied by two transformers connected in parallel. **This connection is not recommended!**

Wiring errors, which can result from ignorance or accident, carry considerable risks. There is a danger that the recovery of the input voltage could result in a dangerous touch voltage. For toy transformers (e.g. transformer 52 VA-12-18 V) this danger is reduced by an integrated regenerative protection. Safety transformers that are not toy transformers (e.g. transformer 50 VA-16 V) do not have this feedback protection!



**Parallel connection of transformers:
Danger to life through electric shock!**

Connection to the power supply and commissioning

Insert the mains plug directly into a properly installed and fused safety socket that is supplied with 230 V/AC, 50 Hz (10/16 A). The transformer then immediately supplies the output voltage.

Do not use a ballast unit, dimmer or similar for the connection.

After the formation of condensation water, wait until the condensation has evaporated before starting up. This can take several hours.

4. Operation

The transformer has a thermal protection switch that automatically switches off the unit in case of overload or overheating. The transformer can only be put back into operation after

- it has cooled down completely (duration at least 30 minutes) and
- the mains plug has been disconnected from the mains supply.

Eliminate the cause of the overload or overheating before restarting the transformer.

5. Transformer 50 VA-16 V: Technical specifications




For use in closed rooms.



Safety transformer according to EN-61558. Short circuit proof.



Does not meet the requirements of DIN EN 62115 "Electrical toys - Safety" and is therefore not intended to be connected by children under 14 years of age!

Total power	max. 50 VA
Input voltage	230 V
Frequency	50 – 60 Hz
Output voltage	16 V AC
Output current	Max. 3.125 A
Insulation class	Ta 40 °C/E
Temperature switch	110 °C
Protection class	II 
Protected to	IP40
Dimensions (length x width x height)	approx. 100 x 60 x 62 mm
Weight	approx. 1,150 g (cable included)

6. Transformer 52 VA-12/18 V: Technical specifications




For use in closed rooms.



Safety transformer according to EN-61558.
Short circuit proof.



Meets the requirements of
DIN EN 62115 "Electrical
toys - Safety".

Total power	max. 52 VA
Input voltage	230 V
Frequency	50 – 60 Hz
Output voltage	0 / 12 / 18 V AC
Output current	Max. 2.9 A
Insulation class	Ta 40 °C/E
Temperature switch	110 °C
Protection class	II 
Protected to	IP40
Dimensions (length x width x height)	approx. 130 x 70 x 50 mm
Weight	Approx. 1,270 g (cable included)

7. Guarantee bond

For this product, we voluntarily grant a 2-year warranty from the date of purchase of the first customer, but for a maximum of 3 years after the end of serial production of the product. The first customer is the consumer who first purchased the product from us, a dealer or any other natural or legal person who resells or installs the product in the course of their independent professional activity. The guarantee exists in addition to the statutory warranty claims to which the consumer is entitled against the seller.

The scope of the guarantee includes the free repair of defects that can be proven to be due to faulty material processed by us or to manufacturing defects. We guarantee the adherence to the technical data in case of prescribed commissioning and operation.


We reserve the right to repair, rectify, replace or refund the purchase price. Further claims are excluded. Claims for compensation for consequential damage or from product liability exist only in accordance with the statutory provisions.

A prerequisite for the effectiveness of this guarantee is the observance of the instructions. Furthermore, the warranty claim expires in the following cases:

in case of repair attempts on the device,
in the event of damage caused by the intervention of third parties,
in case of incorrect operation or damage due to negligent handling or misuse.

Please do not send defective devices to us carriage forward. In case of warranty we will refund the regular shipping costs. In case of repairs not covered by the warranty, you will have to bear the costs for return shipment.

8. EU declaration of conformity

 This product conforms with the EC-directives mentioned below and is therefore CE certified.

2014/35/EU on electrical equipment (low voltage directive). Underlying standards: EN 61558-1 and 61558-2-6.

2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS), amended by Directives (EU) 2015/863 and 2017/2102. Underlying standard: EN 50581.

2004/108/EC on electromagnetic compatibility. Underlying standards: EN 55014-1 and EN 61000-6-3.

The 52 VA-12/18 V transformer also meets the requirements of the EU Directive 2009/48/EC on toys. Underlying standard: EN 61558-2-7.

9. Declarations conforming to the WEEE directive



This product conforms with the EC-directive 2012/19/EG on waste electrical and electronic equipment (WEEE).

Don't dispose of this product in the house refuse, bring it to the next recycling bay.

Information and tips:

<http://www.tams-online.de>

Not suitable for children under 14 years.

Made in Germany.

Warranty and service:

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